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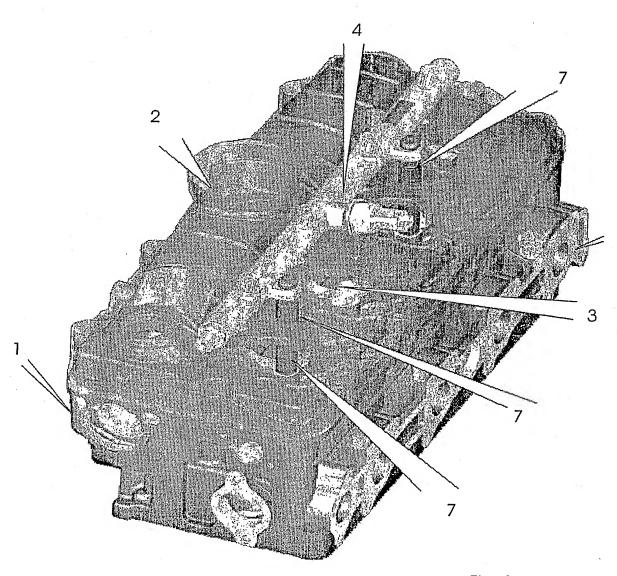
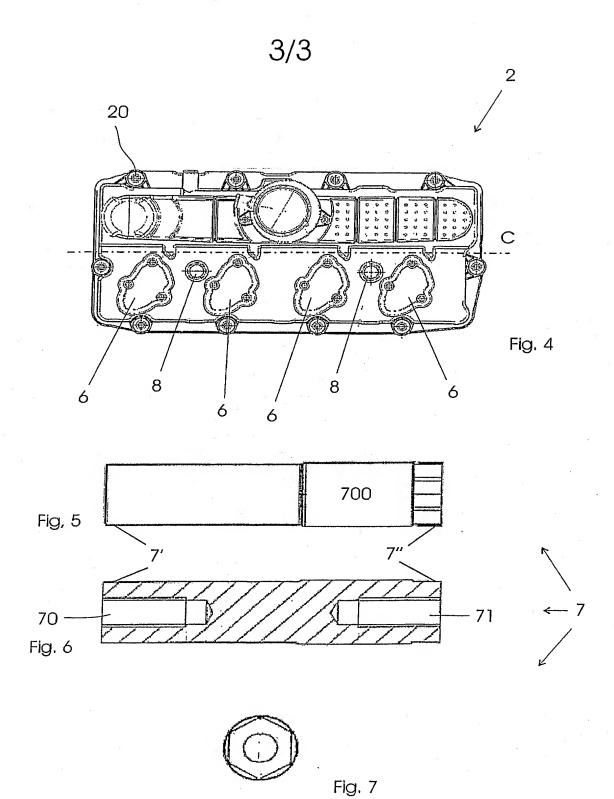


Fig. 3



## INTERNATIONAL SEARCH REPORT

Int >nal Application No Pc | / BR2004/000200

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F02M55/02 F02M69/46 F02M61/14

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC  $\frac{7}{600}$  FO2M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

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C. DOCUM	ENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate,	Relevant to claim No.	
Х	US 2003/106525 A1 (MORGILLO 12 June 2003 (2003-06-12) paragraph '0014! - paragraph paragraph '0023! - paragraph figures 1-3	1,2,4-7, 12,13,15	
X	EP 0 964 151 A (TOYOTA JIDOS KAISHA) 15 December 1999 (19 paragraph '0009! - paragraph figures 1-4	1,2,4-6, 12,13,15	
Х	US 5 735 247 A (TSUZUKI ET A 7 April 1998 (1998-04-07) column 2, line 37 - column 6 figures 1-10	1,2,4-6, 12,13,15	
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X Furthe	er documents are listed in the continuation of box C.	Patent family members are listed in	in annex.
Special cate	gories of cited documents:	"T" later document published after the inte	mational filing date
conside	t defining the general state of the art which is not red to be of particular relevance cument but published on or after the international	or priority date and not in conflict with cited to understand the principle or the invention	the application but eory underlying the

Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
<ul> <li>Special categories of cited documents:</li> <li>"A" document defining the general state of the art which is not considered to be of particular relevance</li> <li>"E" earlier document but published on or after the international filing date</li> <li>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</li> <li>"O" document referring to an oral disclosure, use, exhibition or other means</li> <li>"P" document published prior to the international filing date but later than the priority date claimed</li> </ul>	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  "&" document member of the same patent family
Date of the actual completion of the international search  7 February 2005	Date of mailing of the international search report  17/02/2005
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Authorized officer  Louchet, N

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